

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ03/00210

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: C07D 253/10, 401/12, 403/12; A61K 31/53; A61P 35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN Substructure Search based on compounds of Formulae I, I', XVIII and XVII'

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	Biochemical Pharmacology, Vol. 65 (11), 2003, Delahoussaye et al, "Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting", pages 1807-1815 See especially compound SN 26955, page 1808	1-67
X	Journal of Heterocyclic Chemistry, Vol. 30(2), 1993, Parrick et al, "The Synthesis of a Potential Anti-Cancer Agent Containing the Caffeine and 1,2,4-Benzotriazine Moieties", pages 323-327 See especially Compound 6, page 325	30-53, 61, 63, 65,67
X	Anti-Cancer Drug Design, Vol. 10(3), 1995, Mehta et al, "Potential bioreductively activated hypoxia probes and post-irradiation radiosensitizers related to NITP", pages 227-241 See especially Compound 3, page 228	30-53, 61,63,65,67



Further documents are listed in the continuation of Box C



See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"E" earlier application or patent but published on or after the international filing date

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"O" document referring to an oral disclosure, use, exhibition or other means

"&"

document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search

10 December 2003

Date of mailing of the international search report

17 DEC 2003

Name and mailing address of the ISA/AU

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages (Remove spaces when completed if the page is too long)	Relevant to claim No.
X	WO 91/04028 A (SRI INTERNATIONAL) 4 April 1991 See especially Examples 6, 10, 11, pages 14-21	64, 65
X	EP 972517 A2 (THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY) 19 January 2000 See especially Examples 6, 10, 11, 17, 18	64, 65
X	US 5827850 A (BROWN et al) 27 October 1998 See Column 4, lines 55-60	64, 65
X	DD 272591 A (NICLAS et al) 18 October 1989 See especially Examples 5,6	64, 65
P,X	Journal of Medicinal Chemistry, Vol. 46(1), 2003, Hay et al, "Structure-Activity Relationships of 1,2,4-Benzotriazine 1,4-Dioxides as Hypoxia-Selective Analogues of Tirapazamine", pages 169-182 See table 1, page 172	64, 65
X	Chemical Abstracts, Volume 129, Abstract 339530 (& Anti-Cancer Drug Design, Vol. 13 (6), 1998, Kelson et al, "1,2,4-Benzotriazine 1,4-dioxides. An important class of hypoxic cytotoxins with antitumour activity", pages 575-592) See for example RN 166182-17-8, 166182-18-9, 215034-31-4, 215535-59-4	64, 65
X	Chemical Abstracts, Volume 116, Abstract 187502 (& International Journal of Radiation Oncology, Biology, Physics, Vol. 22(4), 1992, Minchinton et al, "Second generation 1,2,4-benzotriazine 1,4-di-N-oxide bio-reductive antitumour agents: pharmacology and activity in vitro and in vivo", pages 701-705)	64, 65
X	Chemical Abstracts, Volume 114, Abstract 164101 (& Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry, Vol 12, 1990, Argyropoulos et al, "Cycloadditions of nitril oxides with benzofuran n-oxides", pages 3277-3287) See RN 132922-33-9, 132922-34-0, 132922-35-1, 132922-36-2	65
X	Chemical Abstracts, Volume 112, Abstract 171760 (& Biochemical Pharmacology, Vol. 39(4), 1990, Tocher et al, "Electrochemical studies and DNA damaging effects of the benzotriazine-N-oxides", pages 781-786) See RN 121135-28-2, 121140-01-0	65
X	Chemical abstracts Volume 111, Abstract 3393 (& International Journal of Radiation Oncology, Biology, Physics, Vol. 16 (4), 1989, Zeman et al, "Structure-activity relationships for benzotriazine di-N-oxides", pages 977-981) See RN 121135-27-1, 121135-28-2, 121135-30-6, 121140-01-0	64, 65

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/NZ03/00210

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO	91/04028	AU	646794	DE	68929050	EP	478545
		JP	3034541	NO	920747		
EP	972517	AU	74117/94	CA	2132578	DE	69424915
		EP	649658	JP	7215882	RU	2148406
		US	5484612	US	5670502	US	6121263
		US	6277835				
US	5827850	AU	68548/96	AU	69690/98	CA	2232989
		CN	1202827	EP	866709	EP	1044005
		JP	11511479	JP	2001523248	RU	2166946
		US	6153610	WO	9711699	WO	9847512
DD	272591						
END OF ANNEX							

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